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ABSTRACT

A study was conducted to assess and account for high school student aspirations for post-secondary education. This study intends to shed some light as to why or why not a Vermont high school student will aspire to further education, the content of that aspiration, and factors which determine that aspiration. Major topics discussed include: (1) correlation between the aspiration rate and the continuation rate, (2) variables that account for aspiration rates, (3) high school student preference for specific post-secondary services, (4) analysis of educational aspiration, and (5) analysis of continuation rates. Results are given. (CK)

Interim Report

Postsecondary Education Access Study.

PART I:

"VERMONT HIGH SCHOOL STUDENT ASPIRATION STUDY"

Submitted to the

State of Vermont Commission

on Higher Education Facilities

By

Steven F. Hochschild

James Gilbert Johnston

ACKNOWLEDGEMENTS

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We are grateful for this generous support and, indeed, could not have undertaken the study without this help. We look forward to continuing co-operation with these groups as we complete and disseminate the study.

Steven F. Hochschild, Project Director
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Post-Secondary Education Access Project

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INTRODUCTION

An underlying assumption of this study is that Vermont's educational leaders and decision-makers continually strive to improve the opportunity of Vermonters to gain post-secondary education and to improve the quality of that opportunity.

Central to these concerns is the Vermont reality of access to and aspiration for post-secondary education. This study attempts to assess and account for high school student aspirations for post-secondary education. This study intends to shed some light as to why or why not a Vermont high school student will aspire to further education, the content of that aspiration, and factors which determine that aspiration.

This Preliminary Report is but one part of a three part study which also will include an examination of "aspirations" among adult Vermonters for post-secondary education, and a proposal for an inventory for a statewide information system for post-secondary educational planning. These last two parts of the study will be completed shortly.

In many cases our research to date, in an attempt to answer one question, has given rise to another which deserves attention. We have attempted to point these out as we present our findings. We hope this study will provoke discussion which will lead to fruitful new research, follow-up, and action. We are prepared to help any group make better use of the data and findings we review in this Report. This Report, although complete in some sense, is interim and should not be considered as conclusive or even complete until other aspects of the research in progress are brought together.

I

Review of Major Findings and Recommendations for Action

In this section we have attempted to sort out the major findings of our research to date. In addition, we have suggested some follow-up activities geared either to further research and verification, or to the actual application of this research to help attack some of the problems related to post-secondary education access. We do not believe that our suggestions should be accepted literally. Rather, we hope that what we offer will stimulate further thought and action.

I. The Aspiration Rate Is Higher Than Continuation Rate

FINDINGS:

There is a wide disparity between a high school student's aspiration to attend some form of postsecondary education (68.9%), and his actual enrollment and continuation into postsecondary education (49%). The aspiration rate to attend some form of college is 57%, but the actual continuing rate into college is 40%. It is obvious, then, that there are significant obstacles to access encountered when a Vermont student attempts to translate his aspiration to continue his education into actual postsecondary school enrollment.

When we initiated the high school component of the Access Study we did not assume that this aspiration rate would be so high. Hence, we did not focus our research on the causes of this wide "reach-grasp" disparity. At this time we do not know the variables which account for the disparity.

RECOMMENDATIONS:

We would urge research into the problem of this "reach-grasp" disparity to attempt to identify those crucial obstacles or variables which do account for the disparity between high school students' aspirations and his actual continuation in postsecondary education.

This recommended additional research could take the form of a follow-up study this fall to determine where high school students are continuing their education and, more important, why students with aspirations to continue are not continuing.

Next, we would suggest that the findings of this recommended study be translated into policies and programs under the leadership of a hoped for statewide higher education co-ordinating mechanism which would be aimed at systematically reducing the disparity between aspiration and continuation.

II. Variables That Account For Aspiration Rates

FINDINGS:

While family income does have a consistent and significant impact on all of the variables we studied that are linked to a student's aspiration for post-secondary education, family income does not necessarily directly determine aspiration.

Rather, the most crucial factors which influence aspiration are (1) the influence of close high school friends (peer-groups) and (2) parents and teachers. More directly linked variables, but less tangible variables are (1) the student's perceived utility of post-secondary education, and (2) his feelings of academic self-worth.

We found that aspirations for post-secondary education seem formed prior to entrance to high school.

RECOMMENDATIONS:

We feel that aspiration rates can be changed more effectively by concentrating special programs that are directed toward peer groups and parents/teachers rather than exclusively on the family income problem. Also, that these program efforts be initiated at the elementary school level.

We would also suggest that in terms of program planning, efforts organized to change aspiration levels should be based upon well-organized co-operation between elementary, secondary and post-secondary planners and officials.

III. High School Student Preference for Specific Post-secondary Services

FINDINGS:

High school students aspiring to continue their education have indicated the following preference for services:

(1)	31.4%	University
(2)	27.8%	2-year college
(3)	17 %	4-year college
(4)	12 %	Trade Schools
(5)	4.7%	Apprenticeships and Armed Forces

We have already addressed the problem that the aspiration rate does not become translated into enrollment rates. Here we are concerned with how well particular existing educational services (supplies) are distributed to correspond to the distribution of student demand for more services.

The demand for university services and 2-year college services is very high, and the preference for the 4-year college seems relatively low. The demand for trade schools and related apprenticeships is relatively substantial.

RECOMMENDATIONS:

We recommend that more research and policy-making attention be given to the questions arising from these findings. For example, how should the high demand for two-year colleges be dealt with by a rational process of priority-setting, program planning, and funding allocations for public higher education in Vermont? Or what accounts for only a 17% first choice preference for the four-year colleges and what can and should be done about it?

Some of our existing data can help in explanation of these questions and some additional research may have to be undertaken.

Analysis of the Access Problem

In order to assess the problem of access to post-secondary education for high school students in the state, four major investigations are necessary:

1) An analysis of the aspirations of high school students to provide an estimate of expectations held.

2) an analysis of rates of attendance of students in post-secondary institutions to provide a basis for comparison of aspirations and the subsequent translation of those aspirations into actual school or college attendance.

3) an analysis of reasons stated for not aspiring to post-secondary education to determine at least some ostensible barriers to access.

4) an analysis of the reasons for non-attendance at the institution of choice for those whose aspirations were not attained to provide information for the development of policy in order to decrease the disparity between a student's reach and his grasp for educational opportunities.

This study will deal with the first three parts of the problem.

An Analysis of Educational Aspiration

Concern has been expressed by educators, legislators, and development planners over the apparently low educational aspirations, rates of college attendance, and educational attainment of the citizens of Vermont.

For example:

(1) Nearly 40% of Vermont adults 25 years of age and over do not have high school education (1960 census).

41.2% of Vermont adults 25 years of age and over do not have high school education (1970 census).

(2) In 1972 (latest year for which figures are available) 38.4% of the high school graduates continued their education in colleges or universities, whereas the average for the nation is about 54%.

There are at least two contrary and conflicting views stated with respect to the action that should be taken. The assumption is made, by some, that the attainment of post-secondary education will provide the individual with greater opportunities for personal development, economic success, and social mobility. The action called for is the development of policies which will provide every qualified individual with equal opportunity to obtain the education he wants.

On the other hand, critics suggest that higher levels of education are not necessary for success and that opportunities for personal success lie within the individual. It follows from the critics' position that opportunities for higher education are already equally available to all. Further, if individuals do not take advantage of the educational opportunities which exist, their personal values and priorities should be respected and that efforts should not be made to increase school and college attendance by offering unusual incentives.

Undoubtedly, both of these arguments are too simplistic. There is considerable evidence, however, to show that the aspirations of individuals, their attainments, and their socio-economic success are all affected by their income classifications, educational backgrounds of parents, the kind of school which they attend, and rural and urban backgrounds in a systematic fashion. In other words, those that have get more and those that haven't get less. How much less and why this is so are two of the questions this study is attempting to assess.

In addition, it has been noted that the effects of such social forces are less important often than the individual's own perception of his success and worth and the values he has developed through his own interaction with his immediate environment. The effects of discussion with and encouragement from his own friends and family as well as teachers tend to affect more strongly his perceptions

of himself as a student and the aspirations to which he holds than do the social structural conditions of the world around him such as sex, family income, socio-economic status, or the location of his home be it on a farm or in the city. This study has attempted to assess the impact of all of these factors in a model which describes the strength of each factor and the mechanism by which or through which it acts on the levels of educational aspiration of Vermont high school students.[1]

A. A Description of the Research:

How the Data was Collected

A random cluster sample of ten of the sixty-six public high schools of Vermont was selected for information collection. All students in grades 9, 10, 11, and 12 were surveyed on a written questionnaire. (The names of the sample schools are not included in this report in order to assure anonymity.) The distributions of the sample by sex, by grade, and by school are included in Tables 1, 2, and 3. Only students in attendance on the day the questionnaire was administered were included in the sample.

Research Approach

The method of analysis chosen for this portion of the study is variously called path analysis, multiple regression, and model building. It is particularly useful when the purpose of the research is to explain complex effects of many variables. This multivariate analysis allows the

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[1]A technical report of the background of related research, development of the model, the methodology of the sampling the statistical analysis is available for those who would wish to study the research in detail.

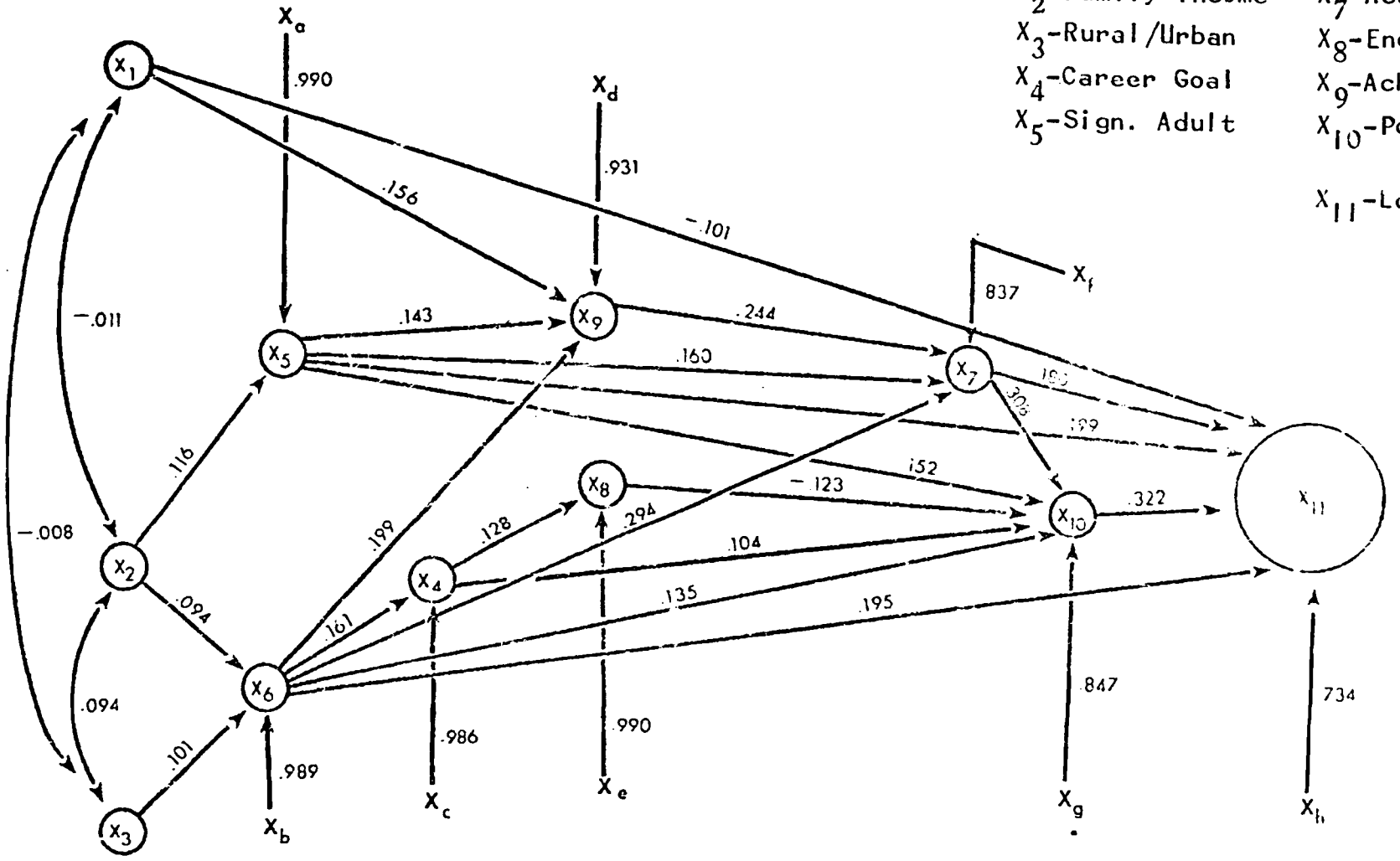
researcher to study the simultaneous effects of many forces on one or more factors of particular importance. For example, in this case we are interested in the effects of family income, rural/urban residence, sex, the influence of high school friends, parents, and teachers, career choice, and the availability of information upon the individual's feelings about himself as a student and the values which he holds for post-secondary education as well as his expectations for continuing education beyond high school.

A model of the process of development of educational aspirations was created indicating the paths of interaction among and between the variables suggested by prior research and suggestions from educators in high schools and colleges. The model which resulted from the testing of the interaction paths follows in Diagram 1. For purpose of easy identification of the variables, shorthand research names identify the individual factors.

The uncontrolled effects of the various factors included in the model were tested, prior to the development of the regression model, by the usual methods of cross-tabulations and correlation. The significant results of the cross-tabulations are described in the next section.

B. What We Have Learned

Contrary to our expectations, the aspirations of Vermont high school students were found to be much higher than the continuation rates of students beyond high school suggested. Although the continuation rates over the years



Regression model of students' perception of factors affecting levels of educational aspiration.

* - All paths are hypothesized $p \geq |.100|$

1965 to 1972 were 49.4%, in all forms of post-secondary education, aspiration rates for all high school students indicated that 68.9% expected to take some further training beyond high school. Sex does make a difference, however, for the aspiration rates of girls were found to be 69.1% and for boys 64.5% (see Table 8). No differences in students' expectations for further training beyond high school were shown for freshmen, sophomores, juniors, or seniors. In terms of years of training planned beyond high school, girls planned fewer years (45.3% two years or less for girls and 39.9% for boys). Even at the high school level, more boys than girls planned more than four years or post-graduate training (17.6% for boys, 12.9% for girls).

Of those students that plan to continue their education, 31.4% hope to attend a university. The next most popular kind of institution is the two-year college (27.8%) followed by the four-year college (17%) and trade schools (12%). Apprenticeships and the armed services appear to be equally popular ways of getting further training (4.7%).

The choice of a career goal, as might be expected, is apparently made as a student moves through his high school career (59.4% of freshmen and 70.7% of seniors reported that they had chosen a definite career). Of the total sample, 63.9% agreed that they had chosen a definite career, while 36.1% disagreed. A similar pattern was shown in discussion of educational plans with parents (61.1% of freshmen stating they had discussed their plans with parents and 83.2% of seniors similarly said yes). In the total sample of those responding to this

question, 68.3% of the boys and 75.5% of the girls said 'yes'. Discussion of educational plans with teachers retained the same pattern by sex and grade level, but with much lower percentages (54.7% of the sample said they had discussed their educational plans with their teachers).

The availability of enough information for making a decision about future educational plans differed significantly for boys and girls. Of the males, 43.2%, as opposed to 38.3% of the females felt there was enough information available. As might be expected, only 31.2% of the freshmen as opposed to 69.7% of the seniors felt enough information was available. (Table C).

Both boys and girls perceived that they were encouraged to continue their education beyond high school by parents and teachers (significant adults) in the same proportion. Two thirds of the sample felt so encouraged. The survey shows that the perceptions of encouragement increase over the grades (59.3% for freshmen and 75.4% for seniors). When it came to encouragement from friends, however, the differences between the sexes were considerable. Of the boys, 33.4%, and 41.6% for girls felt their friends had encouraged them to continue. In exactly the same way, encouragement from friends changed from 33.6% for freshmen to 50.7% for seniors (Table F).

In response to the question asking whether they plan to continue in Vermont, 40.8% of students planning to continue their education said "no", 59.2% said "yes". However, those planning to continue their education in Vermont rose from 55.9% at the freshman level to 63.6% at the senior level.

Students' perceptions of their own high school achievement indicate that the performance of girls in school is significantly better than boys (14.6% of the girls indicating their usual high school grade was C or below, as compared to 32% of the boys). Although differences in achievement by grade level were not significant, it is interesting to note that 16.8% of the seniors felt their usual high school mark was an A as compared to less than 10% of any other grade.

The ability of parents to support the educational plans of students was not perceived differently by boys than girls, however, the perceived level of support did differ significantly with respect to grade level -- freshmen having greater expectations of their parents' ability to support their educational plans than their senior counterparts. The percentage of those who expected their parents could support their plans financially completely remained fairly constant across the grades. The greatest change was in the number of students who felt their parents could support about half of the cost of educational plans. The percentage fell from 40.9% of the freshmen to 27.7% of seniors and the percentage of students who thought their parents could not support them at all rose from 12% at the freshman level to nearly 21% of the seniors (Table K).

Although differences across the grades and between the sexes have been shown to be significant on many factors, the most consistent determinant appears to be the perceived levels of family income. Student achievement, the number of close friends planning post-secondary education, student perceptions of family support

for educational plans, feelings of academic self-worth, plans to graduate from high school, the number of years planned beyond high school, the kind of institution to be attended, the establishment of a career goal, the discussion of educational plans with parents, teachers and friends, perceived encouragement from parents, teachers and friends, college attendance of parents and siblings, are all consistently and significantly related to perceived levels of family income.

C. How We Brought the Findings Together

However, simply because the income factor has this consistent and significant effect on all of these variables, does not guarantee that income is, in fact, the direct cause of aspiration. In order to test the simultaneous effects of perception of family income and other important variables, we developed the regression model of the variables presented in Diagram 1. We found from our model, that the most crucial factors are: (1) the influence of close high school friends (peers) and (2) parents and teachers.

Because the influence of close high school friends and parents/teachers are such direct and significant variables, aspiration rates can be most effectively changed by favoring these variables and not the income or rural/urban variables.

What the Model Shows.

The model shows that the influences of significant adults and peers directly affect the student's achievement, academic self-worth, and the values which the student holds for post secondary education. In addition the effects are cumulative because of the direct effect of these variables on the educational aspirations of the student.

Most important, in light of the apparent effects of family income on the individual variables, is the relative impotence of student perceptions of family income in explaining educational aspirations. In addition, although sex was relatively unimportant in explaining aspirations when other interacting factors were not controlled, the effects of sex became significant, direct and negative showing that girls' aspirations are, in fact, lower than boys'. Moreover the model shows that girls have a systematic advantage over boys in high school achievement.

II An Analysis of Post Secondary Continuation Rates

An analysis of the continuation rates of high school students provides a basis for comparison of aspirations. The continuation rates for the sample schools and the total of the public high schools for the 1972 graduating class are compared below:

	Total Grads	Cont. Coll (%)	Cont. other Post Secondary	% Cont.
Sample schools	779	295(37.9)	39	(42.8)
Total schools	7519	2884(38.4)	389	(43.5)

These continuation rates of sample schools and the public high schools are quite similar. An average continuation rate for the years 1965-1972 is approximately 49.4% for all forms of post secondary education. (See Table 20)

The continuation rates for college and universities, including junior colleges, have been relatively consistent during the same 1965-72 period averaging 40.6%. There has been a dramatic decrease, however, in the percentage of students attending post secondary education other than college and university from 12.7% in 1965 to 5.2% in 1972. In spite of increases in numbers of graduates from 6256 in 1965 to 7519 in 1972 the decrease in continuation other than college and university represents a decrease in actual numbers from 796 to 389. (See Table 21)

In terms of aspiration rates from the current study there is a considerable disparity between student aspirations and actual college attendance. There is also a reasonable assumption that the most valid comparison year would be the 1972 graduating class. In this case the disparity between the aspirations of youth and actual college attendance is increased, 68.9% vs 38.4%.

Currently available data does not provide the answer to why the disparity between aspirations and attendance exists, However, there is one rather obvious reason, the high rates of tuition in the state colleges and university. Another financial deterrent is also likely to have a great impact on attendance but not on aspirations and that is the cost of housing, food and dormitory living for the student who cannot live at home while attending school. More accurate data with regard to student costs and reasons for non-attendance is required to better understand the disparity between the student's educational reach and grasp.

TABLE 1 — Distribution of Sample by School

		%
School A	203	6.9
School B	300	10.3
School C	415	14.2
School D	93	3.2
School E	180	6.2
School F	137	4.7
School G	283	9.7
School H	112	3.8
School I	398	13.6
School J	804	27.5
	N = 2925	100.0Δ

TABLE 2 — Distribution of Sample by Sex

		%
Male	1472	50.3
Female	1451	49.6
No Response	2	.1
	N = 2925	100.0

TABLE 3 — Distribution of Sample by Grade

		%
Freshman	860	29.4
Sophomore	814	27.8
Junior	706	24.1
Senior	532	18.2
No Response	13	.4
	N = 2925	100.0Δ

Δ- Do not sum to 100% due to rounding errors.

TABLE 4 — Distribution of Sample by Perceived Achievement Level

		%
D or Fail	40	1.4
C or Incomplete	635	21.7
B or Pass	1916	65.5
A	297	10.2
No Response	37	1.3
	N = 2925	100.0Δ

TABLE 5 — Distribution of Sample by the Number of Close Friends Planning to Continue Education Beyond High School

		%
None	324	11.1
One	233	8.0
Two	354	12.1
Three	361	12.3
Four	277	9.5
More than Four	1300	44.4
No Response	76	2.6
	N = 2925	100.0

TABLE 6 — Distribution of Sample by Place of Residence

		%
Rural-farm	482	16.5
Rural Non-farm	1243	42.5
Suburban	973	33.3
Urban	185	6.3
No Response	42	1.4
	N = 2925	100.0

TABLE 7 — Distribution of Sample by Perceived Family Income

		%
Low	264	9.0
Middle	2361	80.7
High	253	8.6
No Response	47	1.6
	N = 2925	100.0Δ

TABLE 8 — Distribution of Sample by Level of Educational Aspiration — Number of Years of Education Planned Beyond High School

		%	%	
No Training Beyond High School	909	31.1	31.1	39.4
One Year	244	8.3		
Two Years	615	21.0	68.8	
Three Years	91	3.1		
Four Years	758	25.9		60.5
More than Four Years	308	10.5		
	N = 2925	100.0Δ		

TABLE 9 — Distribution of Sample by Perceived Influence of Significant Others

		%	%	
No one	1650	56.4	56.4	81.9
Family	747	25.5		
High School Friends	224	7.7	43.6	
Teachers	111	3.8		18.1
Others	193	6.6		
	N = 2925	100.0		

TABLE 10 — Distribution of Sample by the Establishment of Career Goal

		%
No Career Goal	1013	34.6
Career Goal Decided	1793	61.3
No Response	119	4.1
	N = 2925	100.0

TABLE 11 — Distribution of Sample by Discussion of Educational Plans With Parents

		%
No	766	26.2
Yes	1949	66.6
No Response	210	7.2
	N = 2925	100.0

TABLE 12 — Distribution of Sample by Discussion of Educational Plans With Teachers

		%
No	1190	40.7
Yes	1432	49.0
No Response	303	10.4
	N = 2925	100.0Δ

TABLE 13 — Distribution of Sample by Discussion of Educational Plans With Friends

		%
No	750	25.6
Yes	1903	65.1
No Response	272	9.3
	N = 2925	100.0

TABLE 14 — Distribution of Sample by the Availability of Information for Making a Decision about Future Educational Plans

		%
No	1694	57.9
Yes	1168	39.9
No Response	63	2.2
	N = 2925	100.0

TABLE 15 — Distribution of Sample by Perceived Parental Encouragement to Continue Education Beyond High School

		%
No	941	32.2
Yes	1890	64.6
No Response	94	3.2
	N = 2925	100.0

TABLE 16 — Distribution of Sample by Perceived Encouragement (by Friends) to Continue Education Beyond High School

		%
No	1636	55.9
Yes	980	33.5
No Response	309	10.6
	N = 2925	100.0

TABLE 17 — Distribution of Sample on Academic Self Worth Scale by Sex

Value	Male	Female	%
0	2	2	.1
1	12	7	.7
2	22	13	1.2
3	40	27	2.3
4	78	52	4.4
5	109	62	5.9
6	148	117	9.1
7	185	162	11.9
8	202	207	14.0
9	211	218	14.7
10	198	248	15.3
11	163	204	12.6
12	102	132	8.0
	1472	1451	100.0

N = 2923†

† — Not all respondents answered all items.

TABLE 18 — Distribution of Sample on Academic Self Worth Scale by Family Income

Value	Low	Middle	High	%
0	0	1	0	0
1	6	11	1	5.6
2	5	24	3	1.1
3	14	50	2	2.3
4	17	105	5	4.4
5	23	129	13	5.7
6	27	213	21	9.1
7	32	279	29	11.8
8	34	338	33	14.1
9	34	349	40	14.7
10	39	356	50	15.5
11	19	310	34	12.6
12	14	196	22	8.1
	264	2361	253	

N = 2878†

TABLE 19 — Distribution of Sample on Value Held for Post Secondary Education by Sex

Value	Male	Female	%
0	20	11	1.1
1	48	33	2.8
2	86	50	4.7
3	84	67	5.2
4	86	90	6.0
5	127	108	8.0
6	145	138	9.7
7	171	192	12.4
8	210	192	13.8
9	224	224	15.3
10	162	229	13.4
11	109	117	7.7
	1472	1451	100.0

N = 2923†

Table 20

Vermont High School Graduates Continuing Education Beyond High School

	Total 1965-72	1965	1966	1967	1968	1969	1970	1971	1972
Total Number of H.S. Grads.	53943	6256	6258	6380	6469	6749	7115	7197	7519
Number entering Higher Ed.	21913	2406	2445	2653	2687	2828	3051	2959	2884
% of Grads.	40.6	38.5	39.1	41.6	41.5	41.9	42.9	41.1	38.4
Number entering Postsecond. Ed. Other than College	4730	796	633	639	709	589	488	487	389
% of Grads.	8.8	12.7	10.1	10.0	11.0	8.7	6.9	6.8	5.2
Number Continuing Education	26643	3202	3078	3292	3396	3417	3539	3446	3273
% of Grads.	49.4	51.2	49.2	51.6	52.5	50.6	49.8	47.9	43.5

Source: Vermont State Department of Education

*TABLE A -- Level of Educational Aspiration by Sex

	Male	Female	
One Year	104 (10.5)	140 (12.1)	224 (12.1)
Two Years	292 (29.4)	323 (31.6)	615 (30.5)
Three Years	48 (4.8)	43 (4.2)	91 (4.5)
Four Years	375 (37.7)	383 (37.5)	758 (37.6)
More than Four	175 (17.6)	132 (12.9)	307 (15.2)
	994 (49.3)	1021 (50.7)	N= 2015

TABLE B -- Type of Institution Chosen by Sex

	Male	Female	
Apprenticeship	67 (6.6)	28 (2.7)	95 (4.7)
Trade School	137 (13.5)	107 (10.5)	244 (12.0)
Two Year Colleges	247 (24.4)	318 (31.1)	565 (27.8)
Four Year Colleges	157 (15.5)	189 (18.5)	346 (17.0)
University	311 (30.6)	329 (32.2)	640 (31.4)
Other	19 (1.9)	33 (3.2)	52 (2.6)
	1015 (49.8)	1022 (50.2)	N = 2037

TABLE C -- Enough Information by Grade

	Freshman	Sophomore	Junior	Senior	
No	591 (68.7)	547 (68.7)	398 (57.9)	158 (30.3)	1684 (59.1)
Yes	262 (31.2)	249 (31.3)	289 (42.1)	364 (69.7)	1165 (40.9)
	844 (29.6)	796 (27.9)	687 (24.1)	522 (18.2)	N = 2949

* TABLES A - S Percentages given in brackets are column percentages except for marginals

TABLE D -- Encouragement (by parents) by Grade

	Freshman	Sophomore	Junior	Senior	
No	340 (40.7)	257 (32.7)	208 (30.5)	127 (24.6)	932 (33.1)
Yes	495 (59.3)	528 (67.3)	475 (69.5)	389 (75.4)	1887 (66.9)
	835 (29.6)	785 (27.8)	683 (24.2)	516 (18.3)	N = 2819

TABLE E -- Encouragement (by friends) by Sex

	Male	Female	
No	871 (66.6)	763 (58.4)	1634 (62.5)
Yes	437 (33.4)	543 (41.6)	980 (37.5)
	1308 (50.0)	1306 (50.0)	N = 2614

TABLE F -- Encouragement (by friends) by Grade

	Freshman	Sophomore	Junior	Senior	
No	503 (66.4)	493 (69.2)	390 (60.1)	289 (49.3)	1625 (62.4)
Yes	255 (33.6)	219 (30.8)	259 (39.9)	246 (50.7)	979 (37.6)
	758 (29.1)	712 (27.3)	649 (24.9)	485 (18.6)	N = 2604

TABLE G -- Encouragement (by friends) by Perceived Level of Family Income

	Low	Middle	High	
No	165 (67.6)	1327 (62.7)	114 (51.8)	1606 (62.2)
Yes	79 (32.4)	790 (37.3)	106 (48.2)	975 (37.8)
	244 (9.5)	2117 (82.0)	220 (8.5)	N = 2581

TABLE H -- To be found on the last page of tables

TABLE I -- Achievement by Family Income

	Low	Middle	High	
D or Fail	7(2.7)	29 (1.2)	1 (.4)	37 (1.3)
C or Inc	80 (30.9)	495 (21.2)	45 (18.1)	620 (21.8)
B or Pass	151 (58.3)	1588 (68.0)	155 (62.2)	1894 (66.6)
A	21 (8.1)	225 (9.6)	48 (19.3)	294 (10.3)
	259 (9.1)	2337 (82.1)	249 (8.8)	

TABLE J -- Place of Residence by Family Income

	Low	Middle	High	
Rural Farm	64 (24.2)	383 (16.4)	29 (11.6)	476 (16.7)
Rural Non-farm	127 (48.5)	992 (42.5)	109 (43.4)	1228 (43.2)
Suburban	53 (20.2)	811 (34.8)	94 (37.5)	958 (33.7)
Urban	18 (6.9)	146 (6.3)	19 (7.6)	183 (6.4)
	262 (9.2)	2332 (82.0)	251(8.8)	

TABLE K -- Support by Family Income

	Low	Middle	High	
Not at all	122 (46.9)	254 (11.1)	35 (14.0)	411 (14.6)
Less than Half	76 (29.2)	467 (20.3)	19 (7.6)	562 (20.0)
About Half	30 (11.5)	964 (42.0)	58 (23.2)	1052 (37.5)
All	32 (12.3)	612 (26.6)	138 (55.2)	782 (27.9)
	260 (9.3)	2297 (81.8)	250 (8.9)	

TABLE L -- Plans to Graduate from High School by Family Income

	Low	Middle	High	
No	19 (7.2)	74 (3.1)	9 (3.6)	102 (3.5)
Yes	245 (92.8)	2287 (96.9)	244 (96.4)	2776 (96.5)
	264 (9.2)	2361 (82.0)	253 (8.8)	N = 2878

TABLE M -- Level of Educational Aspiration by Family Income

	Low	Middle	High	
One Year	31 (20.1)	196(11.8)	17 (9.1)	244 (12.2)
Two Years	48 (31.2)	520 (31.4)	44 (23.5)	612 (30.6)
Three Years	8 (5.2)	76 (4.6)	7 (3.7)	91 (4.6)
Four Years	39 (25.3)	641(38.7)	68 (36.4)	748 (37.5)
More than Four	28 (18.2)	223(13.5)	51 (27.3)	302 (15.1)
	154 (7.7)	1656 (82.9)	187 (9.4)	N = 1995

TABLE N -- Type of Educational Institution Chosen by Family Income

	Low	Middle	High	
Apprenticeship	9 (5.8)	83 (5.0)	3 (1.6)	95 (4.7)
Trade School	26 (16.8)	187 (11.2)	29 (15.4)	242 (12.0)
Two Year College	45 (29.0)	477 (28.4)	39 (20.7)	561 (27.8)
Four Year College	18 (11.6)	287 (17.1)	37 (18.1)	339 (16.8)
University	39 (25.2)	521 (31.1)	76 (40.4)	636 (31.5)
Other	4 (2.6)	44 (2.6)	4 (2.1)	52 (2.6)
	155 (7.7)	1676 (83.0)	188 (9.3)	N = 2019

TABLE O -- Most Important Influence in Plans by Family Income

No one	109 (50.0)	979 (48.7)	102 (46.4)	1190 (48.6)
Family	48 (22.0)	610 (30.4)	77 (35.0)	735 (30.0)
Friends	26 (11.9)	174 (8.7)	21 (9.5)	221 (9.0)
Teachers	13 (6.0)	91 (4.5)	6 (2.7)	110 (4.5)
Others	22 (10.1)	155 (7.7)	14 (6.4)	191 (7.8)
	218 (8.9)	2009 (82.1)	220 (9.0)	N = 2447

TABLE P -- Educational Plans Discussed (with Parents) by Family Income

	Low	Middle	High	
No	106 (43.4)	596 (27.1)	48 (20.3)	750 (28.0)
Yes	138 (56.6)	1600 (72.9)	189 (79.7)	1927 (72.0)
	244 (9.1)	2196 (82.0)	237 (8.9)	N = 2677

TABLE Q -- Educational Plans Discussed (with Teachers) by Family Income

	Low	Middle	High	
No	129 (54.4)	948 (44.6)	95 (42.0)	1172 (45.3)
Yes	108 (45.6)	1178 (55.4)	131 (58.0)	1417 (54.7)
	237 (9.2)	2126 (82.1)	226 (8.7)	N = 2589

TABLE R -- Educational Plans Discussed (with Friends) by Family Income

	Low	Middle	High	
No	94 (39.7)	580 (26.9)	61 (26.9)	735 (28.1)
Yes	143 (60.3)	1573 (73.1)	166 (73.1)	1882 (71.9)
	237 (9.1)	2153 (82.3)	227 (8.7)	N = 2617

TABLE S -- Encouragement to Continue (from Parents) by Family Income

	Low	Middle	High	
No	115 (44.7)	739 (32.3)	68 (27.9)	922 (33.0)
Yes	142 (55.3)	1553 (67.8)	176 (72.1)	1871 (67.0)
	257 (9.2)	2292 (82.1)	244 (8.7)	N = 2793

TABLE H -- Academic Self-Worth by Family Income

	Low	Middle	High	
Low Academic Self-Worth	126 (47.7)	533 (22.6)	44(17.4)	703 (24.4)
High Academic Self-Worth	138 (52.3)	1828 (77.4)	209(82.6)	2175(75.6)